



ABSTRACT

The development of product in recently is getting increase especially in design sector. For getting the new product with high quality must be followed with good product design. When the product is crucial then the design is complicated too. This case made the programmer or scientist created engineering software such as AutoCAD, Master CAM, SOLIDWORKS, CREO, Autodesk Inventor, and Pro/ENGINEERING. With this software, it would help the engineer make a complicated design product with easier ways to accomplished it.

The Author's final project is make a design of painting booth using Autodesk Inventor. In this report, author described how to design a painting booth then analysis the result from design of painting booth using toolbar Frame Analysis in Autodesk Inventor software.

After analysis and get the safely strengthness result of painting booth design, then writer explain about manufacturing process based on painting booth design that have been made before. Manufacturing process activity include material cutting, grinding, welding and painting.

Key Word: Design Product, Analysis, and Manufacture Process.



INTISARI

Perkembangan suatu produk meningkat setiap harinya khususnya dalam bidang *design*. Untuk mendapatkan produk baru dengan kualitas yang tinggi maka harus diikuti dengan *design* produk yang bagus. Jika suatu produk sangat penting maka *designnya* bisa sangat rumit pula. Kasus ini yang melatar belakangi munculnya berbagai macam *software* yang dapat memudahkannya seorang *engineer* dalam menyelesaikan *design-design* produk yang sangat rumit, *software* tersebut seperti AutoCAD, Master CAM, SOLIDWORKS, CREO Autodesk Inventor, dan Por/ENGINEERING.

Projek tugas akhir penulis adalah membuat *design painting booth* menggunakan *software* Autodesk Inventor. Dalam laporan ini, penulis menjabarkan tentang proses pembuatan *design painting booth* kemudian menganalisa hasil dari *design painting booth* tersebut menggunakan bantuan *toolbar Frame Analysis* pada *software* Autodesk Inventor.

Setelah menganalisa dan mendapatkan hasil kekuatan *design painting booth* yang aman, kemudian penulis menjabarkan tentang proses manufaktur yang berlandaskan *design painting booth* yang telah dibuat sebelumnya. Proses manufaktur yang dilakukan berupa proses pemotongan material, penggerindaan, pengelasan, dan pengecatan.

Kata Kunci: *Design* Produk, Analisa, dan Proses Manufaktur.